

Moving Coil Instruments

90 degrees pointer deflection

Customer item no.:

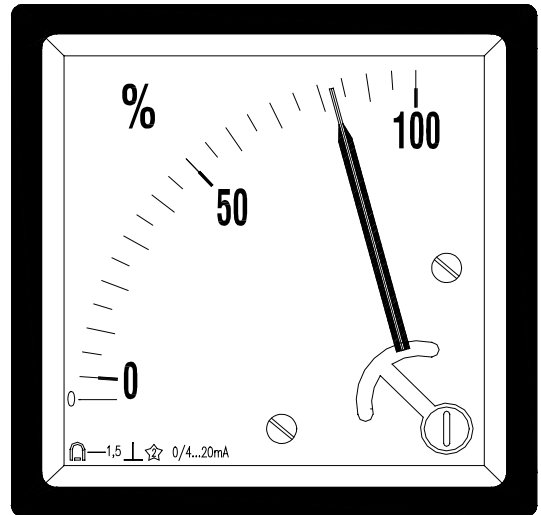
Customer ID name:

Specification:

Type: DQ72RS, 0/4-20mA, RTP IP56 Ex
 Productno.: 101214
 Range: 0/4-20mA DC
 electric suppressed zero point
 Ri: ca 225Ω
 Class: 1,5
 Front frame: 72 x72 mm
 Length of scale: 69 mm
 Weight: 0,3 kg

Certificate: NEMKO No. 04ATEX2097X
 Code:  II 2 G EEx ia IIC T4

Manufactured by
GOSSEN Müller & Weigert, Nürnberg



General:

Shipboard Instruments as per Lloyd's Register of Shipping (Cert.no. AP-98)
 Designed as per VDE 3540,p.2 climatic category 3.
 Splash proof design IP56
 Shock proof up to 5g
 Thrust proof up to 15g
 Test voltage: 2 kV
 Temperature range for operation: -25...+55 C
 Temperature range for storage: -40...+70 C
 Front window in plexi glass

Safety description:

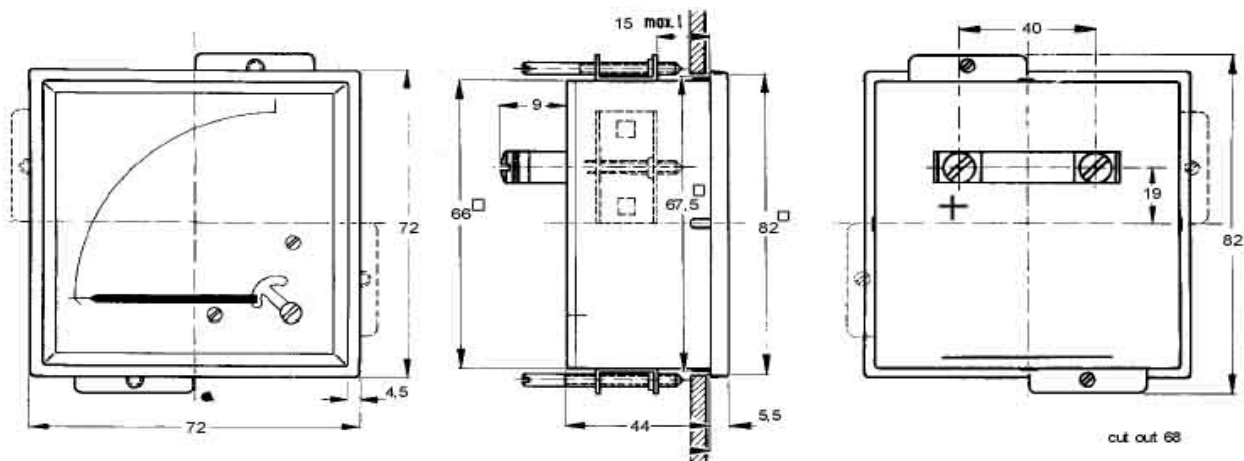
Max input voltage: 28 V
 Max input current: 99 mA
 Max input power: 0,65 W
 Max input capacitance: 1 nF
 Max input inductance: 3 mH

The equipment is assumed to be protected with a certified Safety barrier with data according to the figures above

For impacttest:

Option Q72 Additional plexifront cover for impacttest cutout: 68,5 +0.8 x 68,5 +0.8

Dimension drawings:



Moving Coil Instruments

240 degrees pointer deflection

Customer item no.:

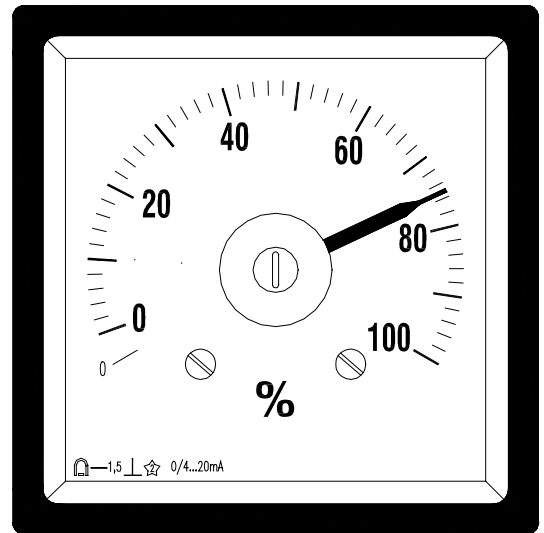
Customer ID name:

Specification:

Type: KrD72S, 0/4-20mA, RTP IP56 Ex
 Productno.:
 Range: 0/4-20mA DC
 electric suppressed zero point
 Ri: ca 225Ω
 Class: 1,5
 Front frame: 72 x72 mm
 Length of scale: 103 mm
 Weight 0,5 kg

Certificate: NEMKO No. 04ATEX2097X
 Code:  II 2 G EEx ia IIC T4

Manufactured by
GOSSEN Müller & Weigert, Nürnberg



General:

Shipboard Instruments as per Lloyd's Register of Shipping (Cert.no. AP-98)
 Designed as per VDE 3540,p.2 climatic category 3.
 Splash proof design IP56
 Shock proof up to 5g
 Thrust proof up to 15g
 Test voltage: 2 kV
 Temperature range for operation: -25...+55 C
 Temperature range for storage: -40...+70 C
 Front window in plexi glass

Safety description:

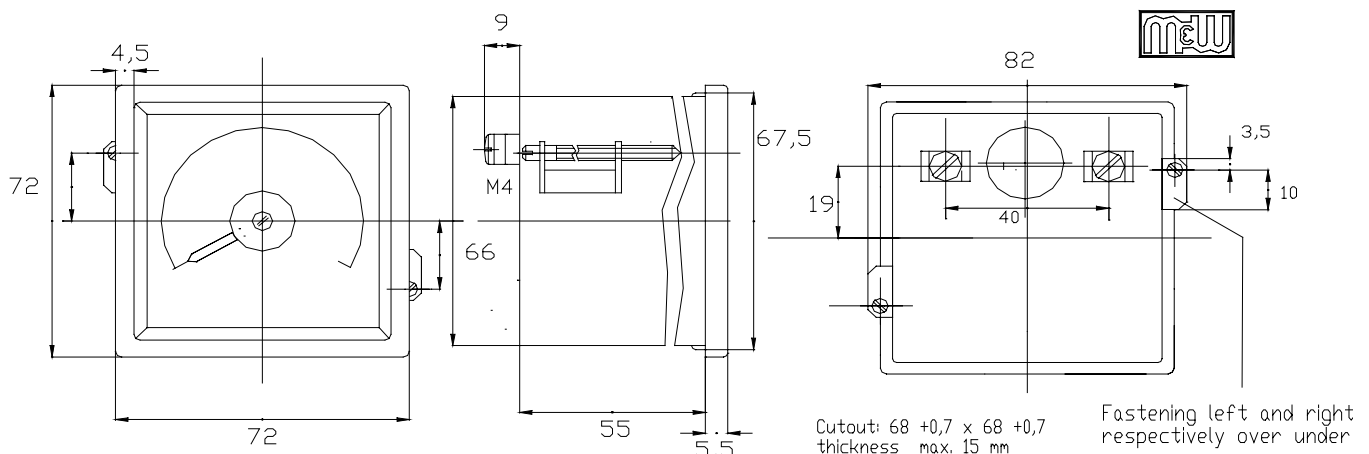
Max input voltage: 28 V
 Max input current: 99 mA
 Max input power: 0,65 W
 Max input capacitance: 1 nF
 Max input inductance: 1 mH

The equipment is assumed to be protected with a certified Safety barrier with data according to the figures above

For impacttest:

Option Q72 Additional plexifront cover for impacttest cutout: 68,5 +0.8 x 68,5 +0.8

Dimension drawings:



Moving Coil Instruments

240 degrees pointer deflection

Customer item no.:

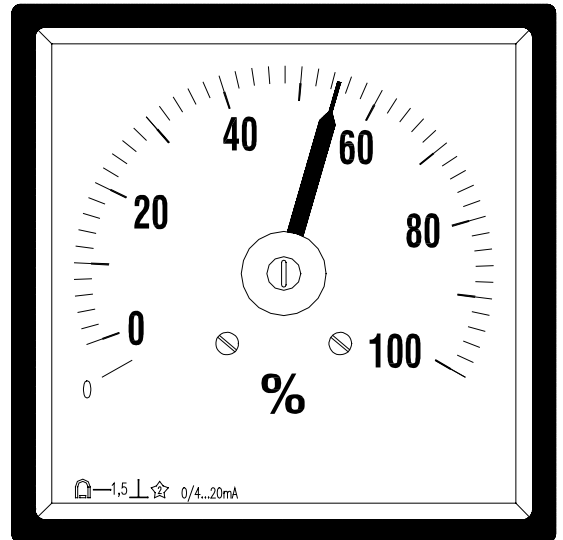
Customer ID name:

Specification:

Type: KrD96S, 0/4-20mA, RTP IP56 Ex
 Productno.:
 Range: 0/4-20mA DC
 electric suppressed zero point
 Ri: ca 225Ω
 Class: 1,5
 Front frame: 96 x 96 mm
 Length of scale: 142 mm
 Weight 0,7 kg

Certificate: NEMKO No. 04ATEX2097X
 Code:  II 2 G EEx ia IIC T4

Manufactured by
GOSSEN Müller & Weigert, Nürnberg



General:

Shipboard Instruments as per Lloyd's Register of Shipping (Cert.no. AP-98)
 Designed as per VDE 3540,p.2 climatic category 3.
 Splash proof design IP56
 Shock proof up to 5g
 Thrust proof up to 15g
 Test voltage: 2 kV
 Temperature range for operation: -25...+55 C
 Temperature range for storage: -40...+70 C
 Front window in plexi glass

Safety description:

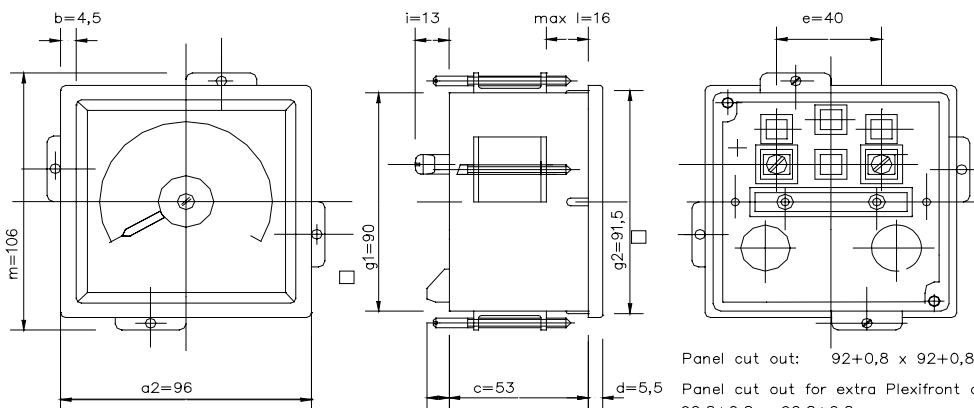
Max input voltage: 28 V
 Max input current: 99 mA
 Max input power: 0,65 W
 Max input capacitance: 1 nF
 Max input inductance: 1 mH

The equipment is assumed to be protected with a certified Safety barrier with data according to the figures above

For impacttest:

Option Q96 Additional plexifront cover for impacttest cutout: 92,8 +0.8 x 92,8 +0.8

Dimension drawings:



Moving Coil Instruments

240 degrees pointer deflection

Customer item no.:

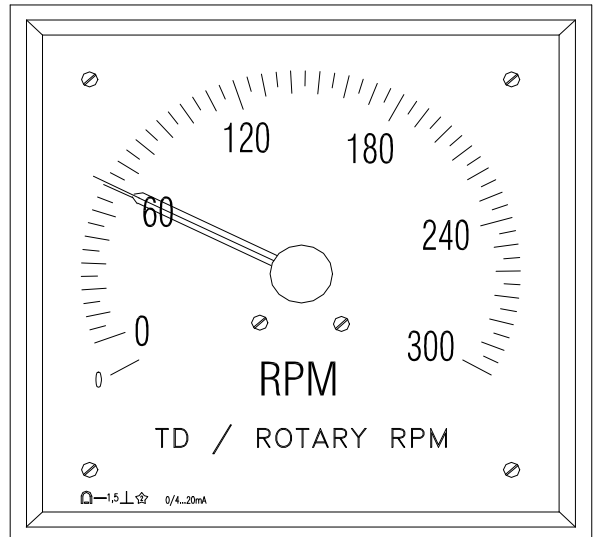
Customer ID name:

Specification:

Type: KrD144S, 0/4-20mA, RTP IP56 Ex
 Range: 0/4-20mA DC
 electric suppressed zero point
 Ri: ca 225Ω
 Class: 1,5
 Front frame: 144 x 144 mm
 Length of scale: 218 mm
 Weight: 1,0 kg

Certificate: NEMKO No. Ex 92C142
 Code: Eex ia IIC T6

Manufactured by
GOSEN Müller & Weigert, Nürnberg



General:

Shipboard Instruments as per Lloyd's Register of Shipping (Cert.no. AP-98)
 Designed as per VDE 3540,p.2 climatic category 3.
 Splash proof design IP56
 Shock proof up to 5g
 Thrust proof up to 15g
 Test voltage: 2 kV
 Temperature range for operation: -25...+55 C
 Temperature range for storage: -40...+70 C
 Front window in plexi glass

Safety description:

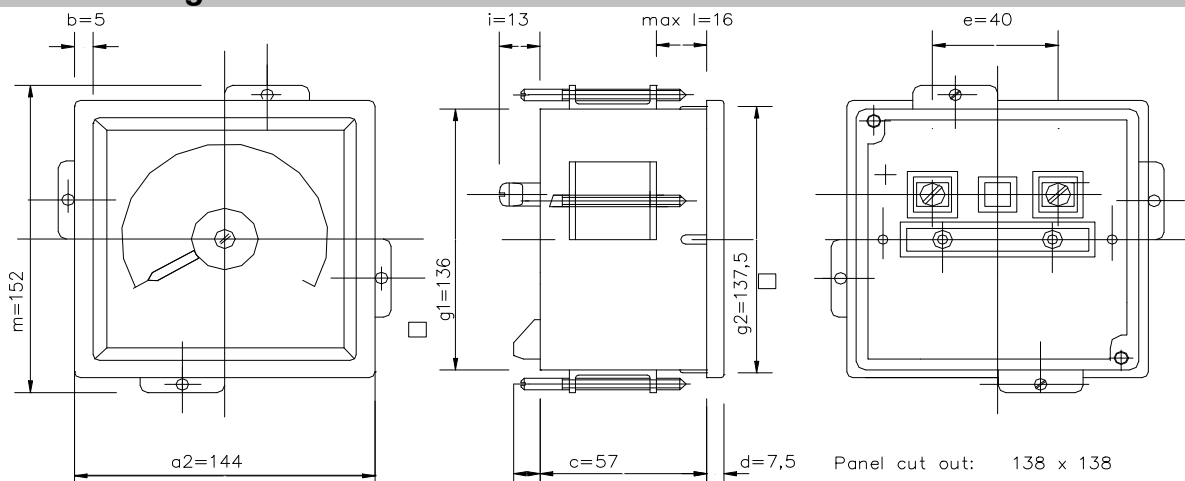
Max input voltage: 28 V
 Max input current: 99 mA
 Max input power: 0,65 W
 Max input capacitance: 1 nF
 Max input inductance: 1 mH

The equipment is assumed to be protected with a certified Safety barrier with data according to the figures above

For impacttest:

No certified,

Dimension drawings:



[1] EC-TYPE EXAMINATION CERTIFICATE

**[2] Equipment or Protected System Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC**

- [3] EC-Type Examination Certificate Number:** Nemko 04ATEX2097X
- [4] Equipment or Protective System:** Moving Coil Instruments
- [5] Applicant:** Kongsgaarden Instrument AS
[6] Address: Strømtangveien 11
Trosvik Næringspart
NO-3950 Brevik, Norway
- [5] Manufacturer:** Gossen Muller & Weigert
[6] Address: Kleinreuther Weg 88
D-90408 Nuremberg
Germany
- [7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.**
- [8] Nemko AS, notified body number 0470 in accordance with Article 9 of Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.**
- The examination and test results are recorded in confidential report no. 20029**
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:**
CENELEC EN 50014: 1997 + A1: 1999 + A2: 1999 and CENELEC EN 50020: 2002
- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.**
- [11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.**
- [12] The marking of the equipment or protective system shall include the following:**



II 2 G

EEx ia IIC T4

Oslo, 2004-05-13



Rolf Hoel
Certification Department

This certificate may only be reproduced in its entirety and without any change, schedule included.

[13] Schedule**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 04ATEX2097X****[15] Description of Equipment or Protective System****Casing:**

Square switchboard indicating instruments in casing of galvanized sheet steel, rearplate of nonflammable synthetic material and frontwindow of plexiglass.

Pointer deflection and movements:

90 degrees pointer deflection for the type DQ...RS

240 degrees pointer deflection for the type KrD...S

The movements of the instruments are fitted with pivot bearings, spring loaded resilient jetwel bearings for vibration proof design up to 5g and thrust proof up to 15g.

Type Designations:

DQ72RS, 0/4-20mA, RPT IP56, Ex

KrD72S, 0/4-20mA, RPT IP56, Ex

KrD96S, 0/4-20mA, RPT IP56, Ex

KrD144S, 0/4-20mA, RPT IP56, Ex

Safety Data

Ui: 28VDC, Ii: 99mA, Pi: 0.65W, Ci: 1nF, Li \leq 1mH (For models: KrD72S, 0/4-20mA, RPT IP56, Ex KrD96S, 0/4-20mA, RPT IP56, Ex & KrD144S, 0/4-20mA, RPT IP56, Ex)

Ui: 28VDC, Ii: 99mA, Pi: 0.65W, Ci: 1nF, Li \leq 3mH (For model: DQ72RS, 0/4-20mA, RPT IP56, Ex)

[16] Report No. 20029**Descriptive Documents**

Name/Title	Drawing No.	Rev.	Date	Sheets
Type label	046-027	--	2004.05.06	1
DQ72RS	046-021	--	2004.03.30	1
KrD72S	046-022	--	2004.03.30	1
KrD96S	046-023	--	2004.03.30	1
KrD144S	046-024	--	2004.03.30	1
4-20mA	046-025	--	2004.03.30	1
Silicon enclosed	046-029	--	2004.05.12	1

[17] Special Conditions for Safe Use

- 1) Caution against rubbing on scale in front of the KrD144S instrument! When cleaning use moist cloth.
- 2) Instrument must be mounted in an enclosure which complies with EN 50014 and has at least IP20

[18] Essential Health and Safety Requirements

See item 9

This certificate may only be reproduced in its entirety and without any change, schedule included.

SUPPLEMENT 1 TO EC-TYPE EXAMINATION CERTIFICATE**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 04ATEX2097X****[15] Description of Equipment or Protective System**

This Certificate is extended to include the new ambient temperature range.

Tamb: -20°C to +60°C

[16] Report No. 40905**Descriptive Documents**

Name/Title	Drawing No.	Rev.	Date	Sheets
Type Label	046-032	--	2005-03-16	1


[17] Special Conditions for Safe Use

None

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2005-03-16


Rolf Hoel
Certification Department*This certificate may only be reproduced in its entirety and without any change, schedule included.*Postal address:
P.O.Box 73 Blindern
N-0314 OSLO, NORWAYOffice address:
Gaustadalléen 30
0373 OSLOTelephone:
+47 22 96 03 30
Fax:
+47 22 96 05 50Enterprise number:
NO 974404532